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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,007	10/31/2005	Michiya Kobayashi	009270-0315086	2826
909 7590 05/29/2008 PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102				
EXAMINER				
GREEN, TRACIE Y				
ART UNIT		PAPER NUMBER		
2879				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/526,007

**Applicant(s)**

KOBAYASHI, MICHIIYA

**Examiner**

TRACIE Y. GREEN

**Art Unit**

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CIS)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Response to Amendment**

1. Receipt is acknowledged of applicant's amendment filed ( date ). Claims 4-5 cancelled by applicant. Claims 1-3 and 6-8 are pending and an action on the merits is as follows.
2. Claims amended to remove improper multiple dependency objection is withdrawn for claims 6-8.
3. Title amended and is more descriptive of client's invention. Objection to title stands withdrawn.
4. No amendments being made, this action is made non-final based on a new ground of rejection.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi (US 6,819,309) in view of Nishi et al. (US 2001/0004190) and in further view of Tagawa (US 5,581,274).

**Regarding claim 1**, Kishi teaches (Figures 4a-4d and 10a-10d) a display device comprising: an optically transparent substrate (2)(Column 5, lines 50-55) first pixel electrode (4) formed on said substrate (2) first pixel electrodes (5) being disposed in a first direction; second pixel electrodes (5) formed on said substrate (2), second pixel electrodes(5) being disposed in a second direction to cross said first pixel electrodes; common electrodes (20,21) provided with optically transparent portions corresponding to said first pixel electrodes (4) and light shielding portions corresponding to said second pixel electrodes (5); first optical layers (m1) disposed between said first pixel electrodes (4) and said common electrodes(20) to change an optical property in response to electric energy applied between said first pixel electrodes and said common electrodes; second optical layers (m2) disposed between said second pixel electrodes (5) and said common electrodes (21) to change an optical property in response to electric energy applied between said second pixel electrodes and said common electrodes; scanning lines disposed in said first direction on said substrate; first and second video signal lines (9) disposed in said second direction on said substrate (2); first switching (6) elements provided in vicinities of points where said scanning lines(9) cross said first video signal lines (10), said first switching elements (6)supplying video signals from said first video signal lines (10) between said first pixel electrodes (4) and said common electrodes (20) in response to scanning signals from said scanning lines

(9); and second switching elements (7) provided in vicinities of points where said scanning lines (9) cross said second video signal lines (11) said second switching elements (7) supplying video signals from said second video signal lines (11) between said second pixel electrodes (5) and said common electrodes (21) in response to scanning signals from said scanning lines (9); wherein at least a part of said first (6) and second switching elements (7) is disposed in a region defined by said substrate (2) and said first pixel electrodes (4).

Kishi is silent regarding first pixel electrodes including light shielding portions and second pixel electrodes including optically transparent portions.

In the same field of endeavor of display devices, Nishi et al. teaches Nishi et al. teaches (Figures 1 and 2) an optically transparent substrate (#101) (Paragraph 26, lines 1-4); first pixel electrodes(43) including light shielding portions (Paragraph 73, lines 1-5); second pixel electrodes (46) including optically transparent portions (Paragraph 82, lines 1-6). (Need motivation here and below).

Kishi as modified by Nishi et al. is silent regarding Nishi et al. is silent regarding the display device above (see claim 1). Nishi is silent wherein said first pixel electrodes are disposed in a first direction, said second pixel electrodes are disposed in a second direction to cross said first pixel electrodes,

In the same field of endeavor of display devices, Tagawa (Figures 1-18) teaches wherein said first pixel electrodes (X) are disposed in a first direction, said second pixel electrodes (Y) are disposed in a second direction to cross said first pixel electrodes in

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order to provide which allows its display duty ratio to be improved (Column 5, lines 55-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the display device as disclosed by Kishi wherein said first pixel electrodes are disposed in a first direction, said second pixel electrodes are disposed in a second direction to cross said first pixel electrodes in order to provide which allows its display duty ratio to be improved as taught by Tagawa.

**Regarding claim 2**, Kishi is silent regarding first and second pixel electrodes are optically reflective on sides facing said common electrodes.

In the same field of endeavor of display devices, Nishi teaches wherein said first and second pixel electrodes are optically reflective on sides facing said common electrodes (Paragraph 24, lines 1-8) (Need motivation)

**Regarding claim 3**, Kishi teaches a first (4, and second pixel electrodes ((5) are alternatively provided in said first and/or second directions. (Examiner note: prior art reference alternates electrodes from top to bottom. first electrode (4) on top surface followed by second electrode (5) on bottom surface.

**Regarding claim 6**, Kishi as modified by Nishi et al. and Tagawa teach claims 1-3 except wherein the number of said first pixel electrodes is different from that of said second pixel electrodes.

However, the examiner notes that wherein the number of said first pixel electrodes is different from that of said second pixel electrodes is not shown to solve any stated problem or yield any unexpected results that is not within the scope of the

teachings applied. Additionally, the examiner notes that the device taught by the combined teachings of the applied art performs same functions in essentially the same manner as the claimed device. Accordingly, these different variances (i.e. first electrode in one direction and second electrode in another, or alternately formed) are considered to be obvious design alternative.

**Regarding claim 7**, Kishi teaches wherein said first and second optical layers are provided with organic electro-luminescent light emitting layers (column 4, lines 30-35).  
7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi (US 6,819,309) in view of Nishi et al. (US 2001/0004190) as applied to claims 1 and 2, in view of Tagawa (US 5,581,274) as applied to claims 1 and 2, and in further view of Hirabayashi (2002/0140343 A1).

Kishi as modified by Nishi et al. and Kawamura et al. teaches the display device set forth above (see rejection claim 1) above. Kishi as modified by Nishi et al. and Kawamura et al. is silent regarding an input manipulator to input signals to said display device.

In the same field of endeavor of display devices, Hirabayashi teaches n input manipulator to input signals to said display device (Paragraph 123, lines 1-6) in order to provide a device with improved contrast ratio.

### ***Response to Arguments***

Applicant's arguments see remarks, filed 02/14/2008, with respect to the rejection(s) of claim(s) 1-5 under 103 have been fully considered and are persuasive.

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Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of Kishi.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRACIE Y. GREEN whose telephone number is (571)270-3104. The examiner can normally be reached on Monday-Thursday, 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571/272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Tracie Y Green/  
Examiner, Art Unit 2879

/Sikha Roy/  
Primary Examiner, Art Unit 2879